

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

THE HILLMAN GROUP, INC.,

Plaintiff,

V.

KEYME, LLC,

Defendant.

**C.A. No. 2:19-cv-00209-JRG**

## JURY TRIAL DEMANDED

# FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff The Hillman Group, Inc. (“Hillman”), files this complaint for patent infringement against Defendant KeyMe, LLC (“KeyMe”) under 35 U.S.C. § 271. Hillman hereby alleges as follows:

## PARTIES

1. Plaintiff Hillman is a corporation organized and existing under the laws of Delaware that maintains its principal place of business at 10590 Hamilton Avenue, Cincinnati, Ohio 45231.

2. Hillman is engaged in the business of providing a variety of products and services for the retail industry, with a focus on the hardware and home improvement businesses. Hillman's products include a variety of key duplication machines, including its FastKey, Minute Key, and KeyKrafter key duplication machines. Hillman deploys its key duplication machines in this judicial district and throughout the United States.

3. On information and belief, Defendant KeyMe is a corporation organized and existing under the laws of Delaware that maintains its principal place of business at 5 Penn Plaza, New York, New York 10001.

4. On information and belief, KeyMe provides self-service key duplication kiosks to the retail industry and regularly conducts business throughout the United States, including within this judicial district, by placing these kiosks in retail locations. On information and belief, KeyMe derives revenue from the sale of the keys duplicated in the KeyMe kiosks to consumers.

### **JURISDICTION AND VENUE**

5. Hillman realleges, and incorporates in full herein, each preceding paragraph.

6. This action arises under the patent laws of the United States, 35 U.S.C. §§ 100, *et seq.*, including 35 U.S.C. § 271, and this Court has jurisdiction over the subject matter of this action under 28 U.S.C. §§ 1331 and 1338(a).

7. This Court has personal jurisdiction over KeyMe because, on information and belief, KeyMe purposely avails itself of the privilege of doing business in the Eastern District of Texas and/or derives substantial revenue from goods and services provided to individuals in this district, including via the deployment of KeyMe key duplication kiosks.

8. On information and belief, KeyMe has deployed approximately thirty of its infringing KeyMe kiosks in this judicial district. *See* D.I. 12-1 at 4.

9. Venue is proper in this judicial district under 28 U.S.C. §§ 1391 and/or 1400(b) because, on information and belief, KeyMe has committed acts of patent infringement within the Eastern District of Texas and has multiple regular and established places of business in this district by way of its thirty or more key duplication kiosks in this district.

10. More than one hundred Hillman FastKey, Minute Key, and KeyKrafter key duplication machines are deployed in the Eastern District of Texas.

11. Hillman also maintains three manufacturing and distribution facilities located within the Eastern District of Texas, totaling more than 334,000 square feet of commercial real estate.

12. Hillman operates a 165,705 square foot distribution facility at 514 Bennett Lane, Lewisville, Texas, within the Eastern District of Texas. Hillman employs over 110 people at the Lewisville facility, which is Hillman's only U.S. distribution center located between Arizona and Ohio.

13. Hillman has leased the Lewisville facility since December of 2017, and has a valid lease on the property through at least May of 2025. More than two million products relating to Hillman's key duplication business touched the Lewisville facility in the twelve months ending in August, 2019, representing tens of millions of dollars in eventual sales.

14. Hillman additionally maintains two facilities in Tyler, Texas, within the Eastern District of Texas. Hillman operates a 105,259 square foot manufacturing, storage, and distribution facility located at 2329 East Commerce Street, Tyler, Texas 75702, and a 63,000 square foot office, manufacturing, storage, and distribution facility located at 6357 Reynolds Road, Tyler, Texas 75708. Hillman has operated the two Tyler facilities since November of 2017, and has a valid lease on each property through at least November of 2022, with options to renew for at least ten additional years. Hillman employs approximately 180 people combined at its two Tyler facilities.

#### **THE PATENTS-IN-SUIT**

15. Hillman realleges, and incorporates in full herein, each preceding paragraph.

16. The U.S. Patent and Trademark Office (“PTO”) issued U.S. Patent No. 8,979,446 (“the ’446 patent”) on March 17, 2015, entitled “Fully Automatic Self-Service Key Duplicating Kiosk.” The ’446 patent identifies Daniel Freeman as the inventor of the claimed subject matter. A true and correct copy of the ’446 patent is attached hereto as **Exhibit A**.

17. Hillman is the owner of the ’446 patent by virtue of assignment and has the right to enforce it.

18. The PTO issued U.S. Patent No. 9,914,179 (“the ’179 patent”) on March 13, 2018, entitled “Self Service Key Duplicating Machine with Automatic Key Model Identification System.” The ’179 patent identifies Daniel Freeman and Ari Freeman as the inventors of the claimed subject matter. A true and correct copy of the ’179 patent is attached hereto as **Exhibit B**.

19. Hillman is the owner of the ’179 patent by virtue of assignment and has the right to enforce it.

20. The PTO issued U.S. Patent No. 10,400,474 (“the ’474 patent”) on September 3, 2019, entitled “Identification Module for Key Making Machine.” The ’474 patent identifies Byron Keith Grice, Phillip Gerlings, John Clayton Campbell, and Michael James Schmidt as the inventors of the claimed subject matter. A true and correct copy of the ’474 patent is attached hereto as **Exhibit C**.

21. Hillman is the owner of the ’474 patent by virtue of assignment and has the right to enforce it.

### **THE INFRINGING PRODUCTS**

22. Hillman realleges, and incorporates in full herein, each preceding paragraph.

23. On information and belief, KeyMe markets a self-service key duplicating kiosk that it has introduced into interstate commerce under one or more trade names, including but not limited to the “KeyMe” or “Locksmith in a Box” kiosks (collectively, “the Infringing Products”). Attached to this Complaint as **Exhibit D** is a printout of a KeyMe website (<https://blog.key.me/key-copying-kiosk-technology-update/>; last visited May 31, 2019), showing examples of the Infringing Products.

24. On information and belief, KeyMe has marketed, sold, offered for sale, and/or provided the Infringing Products to various retailers throughout the United States and this judicial district, including but not limited to 7-Eleven, Bed Bath & Beyond, Rite Aid, Albertson’s, Kmart, Safeway, Sears, Mall of America, Giant Eagle, Ralphs, Kroger, Vons, and Tom Thumb, and is continuing to do so. Attached to this Complaint as **Exhibit E** is a printout of a KeyMe website (<https://www.key.me>; last visited May 19, 2019) instructing consumers to “find us at these fine retailers.”

#### **KEYME’S INFRINGEMENT OF THE ’446 PATENT**

25. Hillman realleges, and incorporates in full herein, each preceding paragraph.

26. KeyMe, via the Infringing Products, has infringed, infringes, and will infringe multiple claims of the ’446 patent, including at least claim 22.

27. The ’446 patent is directed generally to “self-service kiosk[s] for duplicating keys.” See **Exhibit A** at col. 21, l. 10 – col. 30, l. 53.

28. The ’446 patent was previously asserted against KeyMe by the former owner of the ’446 patent, Minute Key, Inc., in a litigation captioned Minute Key, Inc. v. KeyMe, Inc., Civil Action No. 0:15-cv-01599-JNE-KMM, in the United States District Court for the District of Minnesota (“the Minnesota Action”). KeyMe was served with the complaint in the Minnesota

Action on March 30, 2015. *See Exhibit F* (returned summons in the Minnesota Action indicating service by Minute Key on KeyMe's Delaware agent).

29. The parties to the Minnesota Action filed a stipulation of voluntary dismissal for all claims and defenses in the Minnesota Action on February 24, 2017. *See Exhibit G* (copy of joint stipulation). The Minnesota court dismissed the Minnesota Action without prejudice on March 2, 2017, in an order filed on the record on March 3, 2017. *Exhibit H* (copy of dismissal order). No determination was made regarding the validity or enforceability of the '446 patent, or the infringement of any claim of the '446 patent by KeyMe during the Minnesota Action.

30. During the pendency of the Minnesota Action, Hillman filed an *inter partes* review ("IPR") petition with the PTO's Patent Trial and Appeal Board ("PTAB") seeking invalidation of selected claims of the '446 patent. The case was assigned control number IPR2015-01154. Hillman's petition was filed on May 7, 2015. Hillman's petition sought to invalidate only a portion of the claims of the '446 patent, on grounds of obviousness in view of the prior art.

31. The PTAB instituted review based on Hillman's IPR petition on November 16, 2015. On November 14, 2016, the PTAB issued its final written decision, and found claims 1, 7, 8, 11, 12, 15–18, 20, 23–26, 31, 32, 38, 39, 42, 43, 46–49, 51, 54–58, 64, 65, 68, 69, 72, 74, 76, 79–84, 90, 91, 94, 95, 98, 100, and 104–108 of the '446 patent to be unpatentable.

32. The PTO officially cancelled claims 1, 7, 8, 11, 12, 15–18, 20, 23–26, 31, 32, 38, 39, 42, 43, 46–49, 51, 54–58, 64, 65, 68, 69, 72, 74, 76, 79–84, 90, 91, 94, 95, 98, 100, and 104–108 of the '446 patent via an "Inter Partes Review Certificate" dated February 20, 2018.

33. The claims of the '446 patent that were not at issue in IPR2015-01154, namely claims 2–6, 9, 10, 13, 14, 19, 21, 22, 27–30, 33–37, 40, 41, 44, 45, 50, 52, 53, 59–63, 66, 67, 70, 71, 73, 75, 77, 78, 85–89, 92, 93, 96, 97, 99, and 101–103 remain valid and enforceable.

34. Hillman subsequently acquired Minute Key and became the owner of the '446 patent.

35. Claim 22 of the '446 patent depends from independent claim 1, which means that claim 22 includes all the recitations of claim 1.

36. Claim 1 of the '446 patent recites:

A self-service kiosk for duplicating keys, comprising:  
a kiosk housing having a customer interface configure[d] to receive payment from a customer for the purchase of at least one duplicate of the customer's key,  
a key-receiving entry in said housing configured to receive at least a portion of the customer's key to be duplicated, wherein the key-receiving entry blocks insertion of the head of an inserted key so that only the blade of an inserted key extends into the kiosk housing,  
a key analysis system within said housing configured to analyze the blade of a key inserted in said key-receiving entry to determine whether the inserted key matches one of a group of preselected key types and, if so, which preselected key type is matched,  
a key blank magazine within said housing configured to store key blanks for each of said preselected key types,  
a key blank extraction system configured to extract from said magazine a key blank for the preselected key type matched by the blade of said key inserted in said key-receiving entry,  
a key duplicating system within said kiosk configured to replicate the tooth pattern of the blade of said key inserted in said key-receiving entry, on the blade of said extracted key blank, and  
a key-removal exit in said housing providing customer access to the key with the replicated tooth pattern for removal from the kiosk.

37. Claim 22 of the '446 patent recites:

The self-service kiosk of claim 1 in which said kiosk has a front panel that includes a guard adjacent said key-receiving entry to protect the head of a key protruding from said entry from accidental contact.

38. KeyMe has described the Infringing Products as “self-service key copying kiosks.” *See Exhibit I* at 3 (website stating “Find our self-service key copying kiosks in retailers like Bed Bath & Beyond, Rite Aid and 7-Eleven”; <https://blog.key.me/24-hour-locksmith-near-you/>; last visited May 19, 2019).

39. On information and belief, the Infringing Products include a kiosk housing with a customer interface. KeyMe has encouraged customers on its website to “try out KeyMe’s touchscreen today!” *See Exhibit J* at 3 (<https://blog.key.me/how-will-the-touchscreen-evolve-in-2017/>; last visited May 19, 2019). On information and belief, the Infringing Products accept payment at the kiosk via the customer interface.

40. On information and belief, the Infringing Products include a key-receiving entry in the kiosk housing configured to receive at least a portion of a customer’s key to be duplicated. *See Exhibit K* at 1 (snapshot of website showing a KeyMe kiosk with a key-receiving entry surrounded by the instruction “INSERT KEY”; <https://key.me/>; last visited May 19, 2019); *Exhibit L* at 2 (same; <https://blog.key.me/how-our-key-copying-machines-learn/>; last visited May 19, 2019). On information and belief, the key-receiving entry blocks insertion of the head of an inserted key so that only the blade of the inserted key extends into the kiosk housing.

41. On information and belief, the Infringing Products include a key analysis system within the kiosk housing configured to analyze the blade of a key inserted into the key-receiving entry. *See id.* at 1-2 (“When scanning and digitally decoding your house keys, our kiosks use two primary processes that mirror how the human brain functions – computer vision and neural networks. Our computer vision technology allows the kiosk to scan and recognize your key using multiple cameras in a process very similar to how facial recognition technology identifies a person based on a digital image. Based on preset algorithms, our key duplication kiosk



(<http://www.key.me/kiosk>) then generates a 3D image of the key's teeth. When this image is analyzed, the kiosk's brain comes to life.").

42. On information and belief, the Infringing Products utilize a key analysis system to determine whether the inserted key matches one of a group of preselected key types and, if so, which preselected key type is matched. *See id.* at 2 ("The key scan is then matched to existing information on various key types that the kiosk has collected."); *see also* **Exhibit D** at 1-2 ("While a traditional locksmith crudely trace-cuts a key by sight, KeyMe kiosks can recall hundreds of thousands of scans that came before and call upon these examples to quickly and accurately identify a wider range of keys...").

43. On information and belief, the Infringing Products contain a key blank magazine within the kiosk housing configured to store key blanks for each of the preselected key types, and a key blank extraction system configured to extract from said magazine a key blank for the preselected key type matched by the blade of said key inserted in said key-receiving entry. The Infringing Products must contain a storage magazine for key blanks within the kiosk housing, because the Infringing Products do not require the user to insert a key blank from outside the kiosk housing in order to duplicate a key. *See* **Exhibit D** at 2 (describing how at least some of the Infringing Products "autonomously set itself up and start cutting keys without human involvement.").

44. On information and belief, the Infringing Products contain a key duplication system configured to replicate the tooth pattern of the blade of the key inserted into the key-receiving entry on the blade of a key blank extracted from within the system. *See* **Exhibit L** at 2 ("Based on preset algorithms, our key duplication kiosk (<http://www.key.me/kiosk>) then generates a 3D image of the key's teeth."); **Exhibit M** at 2 (snapshot of a KeyMe website stating

“If you’re locked out, all you need to do is locate the nearest KeyMe locksmith in a box and cut a duplicate key. Our kiosks are equipped to print most common key types in just a few seconds.” <https://blog.key.me/locksmith-in-a-box-protects-you-from-lockouts/>; last visited June 3, 2019); *see also* **Exhibit D** at 2 (describing how at least some of the Infringing Products “autonomously set itself up and start cutting keys without human involvement.”).

45. On information and belief, the Infringing Products contain a key-removal exit in the kiosk housing providing the customer access to the key with the replicated tooth pattern for removal from the kiosk. *See* **Exhibit D** at 1 (“Each machine can now track the full-cycle progress of a key as it interfaces with our hardware and robotics and eventually drops into the customer’s hand.”); *see id.* (photograph of one of the Infringing Products revealing a key-removal exit on the lower left side of the front of the kiosk housing directly above “COPY KEYS”); *see also* **Exhibit N** (screenshot of a video posted on KeyMe’s YouTube channel showing a newly-cut key blank being dropped into the key-removal exit in the kiosk housing of one of the Infringing Products; <https://www.youtube.com/watch?v=NALboqLcZR8> at 0:14; last visited May 20, 2019).

46. On information and belief, the Infringing Products therefore meet each and every limitation of claim 1 of the ’446 patent.

47. The Infringing Products include a front panel that contains the key-receiving entry. *See* **Exhibit L** at 2 (photograph of one of the Infringing Products showing the key-receiving entry in the center of the panel).

48. Within this front panel, on information and belief the Infringing Products contain physical features that constitute a guard to protect the head of a key protruding from the key-receiving entry from accidental contact. *See* **Exhibit O** (screenshot of a video posted on

KeyMe's YouTube channel; <https://www.youtube.com/watch?v=NALboqLcZR8> at 0:12; last visited May 20, 2019).

49. On information and belief, the Infringing Products therefore meet each and every limitation of at least claim 22 of the '446 patent, which also contains each and every limitation of claim 1.

### **KEYME'S INFRINGEMENT OF THE '179 PATENT**

50. Hillman realleges, and incorporates in full herein, each preceding paragraph.

51. KeyMe, via the Infringing Products, has infringed, infringes, and will infringe multiple claims of the '179 patent, including at least claim 9.

52. The '179 patent is directed generally to "method[s] of duplicating a key" and "key duplication machine[s]." *See Exhibit B* at col. 17, l. 24 – col. 20, l. 26.

53. Claim 9 of the '179 patent recites:

A key duplicating machine comprising:  
a storage housing configured to store key blanks of different cross-sectional profiles;  
a blade cross-section detector configured to automatically detect a cross-sectional profile of a master key;  
a blank loading system configured to automatically select, from among the different stored key blanks, a key blank whose cross-sectional profile matches the automatically-detected cross-sectional profile of the master key; and  
a key cutting system configured to cut the selected key blank to duplicate a key tooth pattern of the master key.

54. As discussed above, KeyMe has described the Infringing Products as "self-service key copying kiosks," i.e. key duplication machines. *See Exhibit I* at 3 (website stating "Find our self-service key copying kiosks in retailers like Bed Bath & Beyond, Rite Aid and 7-Eleven"; <https://blog.key.me/24-hour-locksmith-near-you/>; last visited May 19, 2019).

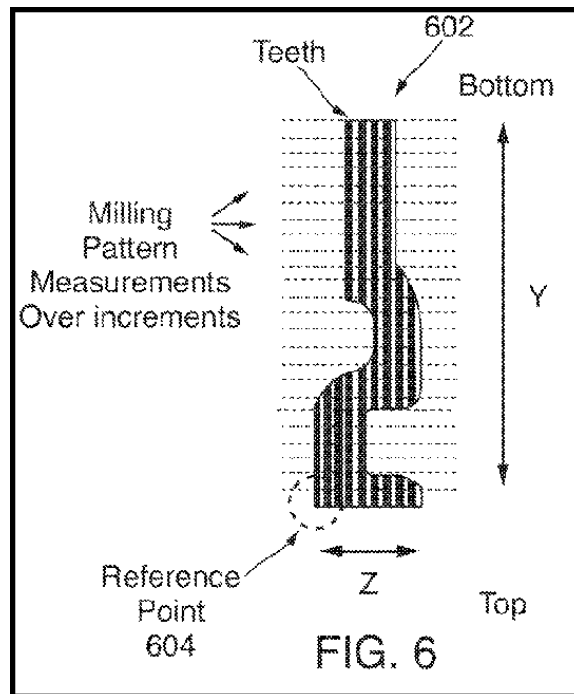
55. As discussed above, on information and belief, the Infringing Products contain a storage magazine configured to store key blanks of different cross-sectional profiles, and a blank loading system configured to automatically select an appropriate key blank that matches the cross-sectional profile of the master key to be duplicated. The Infringing Products must contain a storage magazine for key blanks within the kiosk housing, because the Infringing Products do not require the user to insert a key blank from outside the kiosk housing in order to duplicate a key. *See Exhibit D* at 2 (describing how at least some of the Infringing Products “autonomously set itself up and start cutting keys without human involvement.”).

56. On information and belief, the Infringing Products contain a blade cross-section detector configured to automatically detect a cross-sectional profile of a master key. KeyMe described its identification technology in a patent application filed on January 4, 2013 which later issued as U.S. Patent No. 8,682,468:

More generally, key detector 106 can detect geometric information about a key. For example, key detector 106 can detect the dimensions of a key (e.g., length, width, height, profile, shoulder shape, etc.) and features of the key. Examples of features of the key can include, but are not limited to, a biting pattern, protuberances, dimples, voids, grooves, a milling profile, a milling pattern of the key from one or more side views, a milling pattern of the key from a front view (e.g., looking from the tip of the key toward the head of the key), etc.

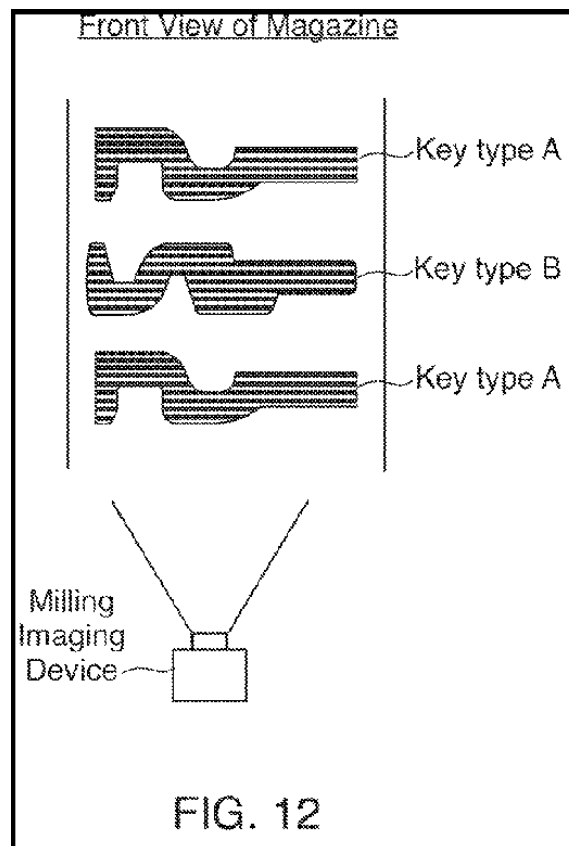
**Exhibit P** at col. 4, ll. 12-21.

57. Figure 6 of the KeyMe '468 patent illustrates KeyMe's use of a cross-sectional profile of a master key:



*Id.* at 8 (FIG. 6).

58. Figure 12 of the KeyMe '468 patent provides further evidence that determining the cross-sectional profile of the master key is critical for KeyMe's identification of an appropriate key blank. Figure 12 depicts KeyMe's use of the cross-sectional profile to assist its machines in detecting and retrieving a key blank whose cross-sectional profile matches that of the master key:



*Id.* at 15 (FIG. 12); *see also id.* at col. 6, ll. 31-37 (“In some embodiments, each magazine can contain an inventory of multiple key types so that the number of magazines does not restrict the number of key types which can be accommodated in a kiosk. An illustrative example is shown in FIG. 12. In this embodiment, a key type detection method (e.g., optical imaging), can be used to identify the location of a given blank type within a magazine.”)

59. On information and belief, this subject matter disclosed in KeyMe’s patent application is embodied within the Infringing Products, and the cross-section detecting features described in the patent application are available for use as part of the key identification and duplication process. KeyMe has represented in press releases that its key duplication kiosks contain its patented key identification technology. *See Exhibit Q* at 1 (April 15, 2014 KeyMe press release stating “Through KeyMe’s patented technology, customers can scan keys with their

smartphone and receive perfect duplicates in the mail.”;

<http://www.prweb.com/releases/2014/04/prweb11764747.htm/>; last visited June 3, 2019);

**Exhibit R** at 2 (May 2, 2018 KeyMe press release stating “KeyMe kiosks employ a sophisticated and patented combination of artificial intelligence, computer vision, and robotics, which safely and effectively eliminate human error in the key duplication process.”;

<https://www.prnewswire.com/news-releases/keyme-advances-national-expansion-of-key-duplication-services-300641032.html>; last visited June 3, 2019).

60. On information and belief, KeyMe detects the cross-sectional profile of an existing key and employs that information during the key identification and duplication processes, in order to identify the existing key and an appropriate matching key blank. This is further supported by KeyMe’s mobile phone app, which requires the customer to capture photographs of both sides of the customer’s existing key before submission to the KeyMe system. *See Exhibit S* (progressive screen captures from KeyMe’s mobile app during the course of a key identification task showing prompts to the user to capture one photograph of one side of the existing key, then instructing the user to flip the existing key over and capture another photograph of the other side of the key; app last accessed May 19, 2019).

61. As discussed above, on information and belief, the Infringing Products contain a key cutting system configured to cut the selected key blank to duplicate a key tooth pattern of the master key. *See Exhibit L* at 2 (“Based on preset algorithms, our key duplication kiosk (<http://www.key.me/kiosk>) then generates a 3D image of the key’s teeth.”); **Exhibit M** at 2 (“If you’re locked out, all you need to do is locate the nearest KeyMe locksmith in a box and cut a duplicate key. Our kiosks are equipped to print most common key types in just a few seconds. You can use the KeyMe app to locate the closest kiosk and cut a replica using only your

fingerprint.”); *see also* **Exhibit D** at 2 (describing how at least some of the Infringing Products “autonomously set itself up and start cutting keys without human involvement.”).

62. On information and belief, the Infringing Products therefore meet each and every limitation of at least claim 9 of the ’179 patent.

**KEYME’S INFRINGEMENT OF THE ’474 PATENT**

63. Hillman realleges, and incorporates in full herein, each preceding paragraph.

64. KeyMe, via the Infringing Products, has infringed, infringes, and will infringe multiple claims of the ’474 patent, including at least claims 1, 11, and 20.

65. The ’474 patent is directed generally to “key making machine[s]” and “system[s] for duplicating a key.” *See* **Exhibit C** at col. 22, line 55 – col. 26, line 25.

66. Claim 1 of the ’474 patent recites:

A key making machine, comprising:  
a housing;  
an identification system, wherein the identification system includes:  
    a slot opening in the housing configured to receive only the shank of an existing key;  
    a transponder sensor located at or around the slot opening configured to detect the presence of a transponder within the head of the existing key and to read a transponder code associated with the detected transponder; and  
    an imaging system comprising one or more light sources and one or more receivers, wherein the imaging system is configured to determine at least one feature selected from the group of features consisting of a biting pattern of the existing key and a channel profile of the existing key;  
a fabrication system, wherein the fabrication system is configured to:  
    receive a key blank that the identification system has determined to be associated with the existing key;  
    receive information associated with the determined biting pattern from the identification system; and  
    cut the determined biting pattern into a key blank; and  
a user interface associated with the housing,  
    wherein the user interface includes a touch screen, and  
    wherein the user interface is configured to provide status information to a user regarding a key duplication process.



*Id.* at col. 22, line 55 – col. 23, line 16.

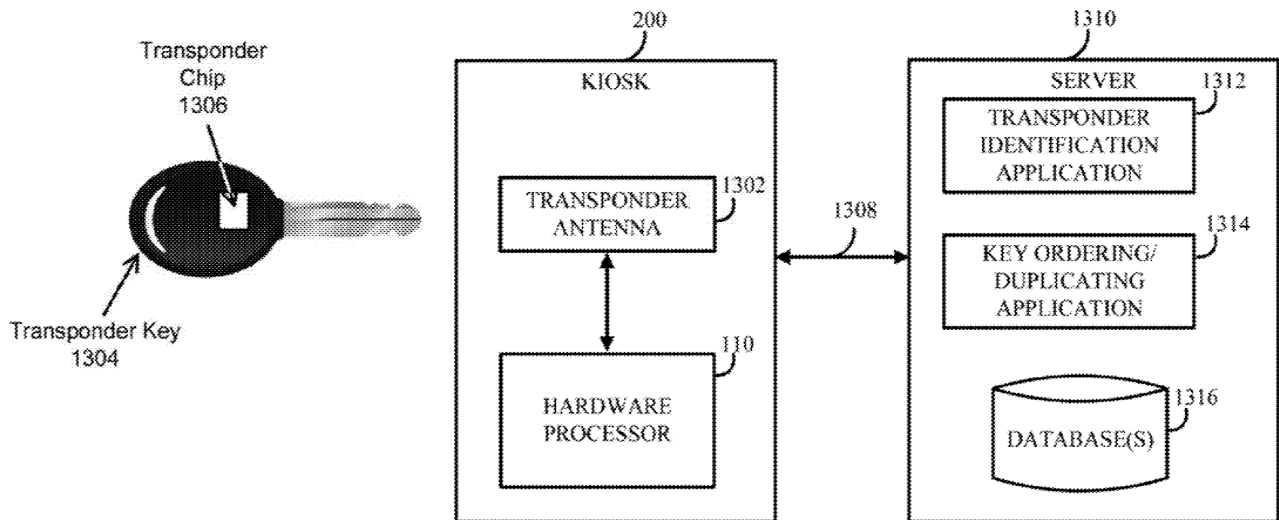
67. KeyMe has described the Infringing Products as “self-service key copying kiosks.” See **Exhibit I** at 3 (website stating “Find our self-service key copying kiosks in retailers like Bed Bath & Beyond, Rite Aid and 7-Eleven”; <https://blog.key.me/24-hour-locksmith-near-you/>; last visited May 19, 2019).

68. On information and belief, the Infringing Products include a key-receiving entry in the kiosk housing configured to receive only the shank of an existing key. See **Exhibit K** at 1 (snapshot of website showing a KeyMe kiosk with a key-receiving entry surrounded by the instruction “INSERT KEY”; <https://key.me>; last visited May 19, 2019); **Exhibit L** at 2 (same; <https://blog.key.me/how-our-key-copying-machines-learn/>; last visited May 19, 2019). On information and belief, the key-receiving entry is configured to block insertion of the head of an inserted key, and receives only the shank of an existing key. See **Exhibit P** (’468 patent) at col. 11, lines 48-50 (“The key scanning slot can allow a user to maintain contact with the handle of the key at all times in some embodiments. The key scanning slot can permit the key to remain attached to a keychain (or key ring, or any other key retention device) during key scanning.”)

69. On information and belief, the Infringing Products include a transponder sensor located at or around the slot opening configured to detect the presence of a transponder within the head of the existing key and to read a transponder code associated with the detected transponder. See **Exhibit D** at 2 (“Our older key copying kiosks could support a large number of car keys, however they weren’t able to copy the more advanced keyless ‘fob’ keys found on more modern cars. Our new kiosks can copy significantly more car keys than ever before, and can copy these Fob keys as well, for a fraction of the cost of a dealership”; **Exhibit T** at 1 (“We have officially launched our next generation ‘locksmith in a box’ key duplication kiosk! These

next generation kiosks are able to copy car keys, both with transponder chips and those without.” (<https://blog.key.me/our-new-locksmith-in-a-box-next-generation-kiosk/>; last visited September 1, 2019); **Exhibit U** at 1 (February 27, 2018 KeyMe press release stating “Once such a key is inserted into the kiosk, the transponder data is captured and stored along with the key’s shape...”; <https://www.rfidjournal.com/articles/view?17242/>; last visited September 1, 2019); **Exhibit V** at 1 (October 27, 2014 KeyMe press release stating “The new kiosks will be able to copy car keys, both with transponder chips and those without”; <https://www.twice.com/the-wire/keyme-rolls-out-next-generation-kiosks-new-functionality-including-car-keys-and-expands-retail-footprint-54570>; last visited September 1, 2019); **Exhibit W** at 1 (October 26, 2016 KeyMe press release stating “The customer places their current fob against the key slot, allowing the secure transfer of the transponder ID. KeyMe will code a new transponder, cut a new blade and ship it to the customer via complementary priority mail with a tracking code.”; <https://www.kioskmarketplace.com/news/keyme-kiosks-copy-car-key-fobs-and-save-digital-copies-in-the-cloud/>; last visited September 1, 2019).

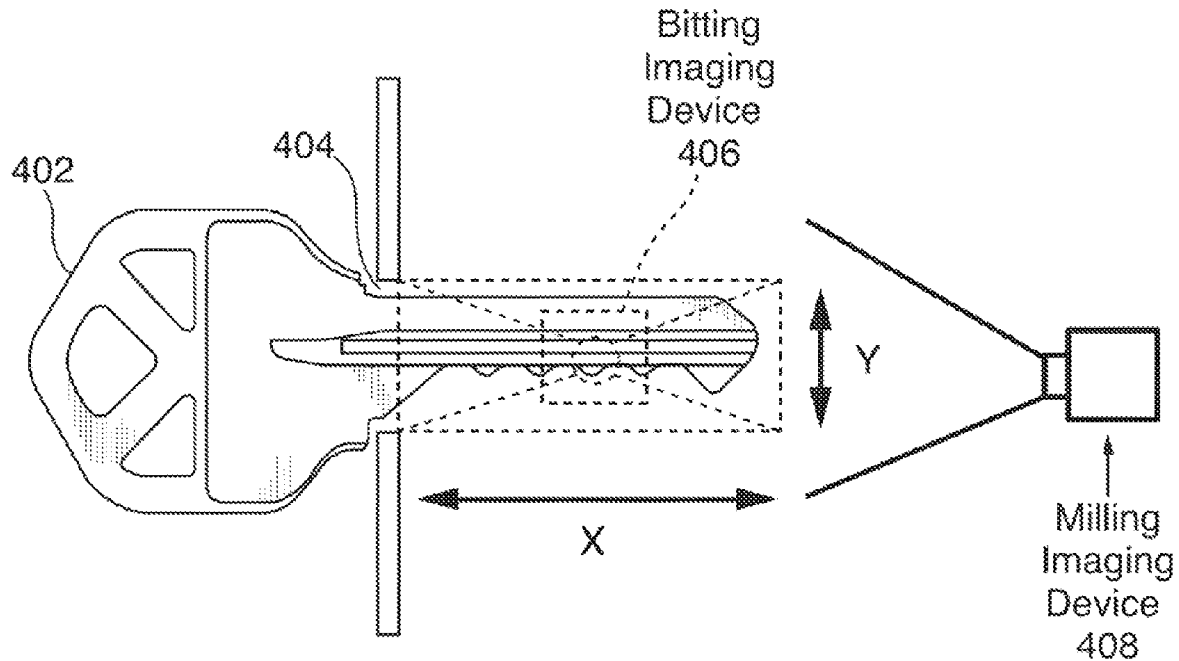
70. KeyMe described the transponder sensors associated with its kiosks in a patent application filed on July 6, 2015 which later issued as U.S. Patent No. 9,563,885. *See generally* **Exhibit X**. Figure 13 of the ’885 patent depicts a schematic of a key duplication kiosk including a “transponder antenna”:



*Id.* at 16 (FIG. 13); *see also id.* at col. 16, ll. 26-31 (“As shown in FIG. 13, in some embodiments, kiosk 200 can include a transponder antenna 1302 that can be coupled to hardware processor 110. In such embodiments, transponder antenna 1302 can be used to send and/or receive signals from a transponder chip 1304 included in a transponder key 1306.”).

71. On information and belief, the Infringing Products include an imaging system comprising one or more light sources and one or more receivers. *See Exhibit K* at 3 (“Instead of trace-cutting your keys like some other guys, KeyMe uses 3D imaging and predictive algorithms, creating a perfect image of your key.”); *Exhibit L* at 1 (“Our computer vision technology allows the kiosk to scan and recognize your key using multiple cameras in a process very similar to how facial recognition technology identifies a person based on a digital image.”); *Exhibit Y* at 2 (news article stating “The [KeyMe] kiosks, equipped with sophisticated robotics systems and multiple internal cameras, as well as frequency detectors for RFID and car-key frequencies, are manufactured in Rochester, Minnesota.”; <https://www.inc.com/christine-lagorio/keyme-new-ad-campaign.html>; last visited September 2, 2019).

72. KeyMe described its identification technology in a patent application filed on January 4, 2013 which later issued as U.S. Patent No. 8,682,468. *See generally* **Exhibit P**. Figure 4A of the '468 patent demonstrates using an imaging system comprising one or more light sources and one or more receivers, in the form of cameras:



**FIG. 4A**

*Id.* at 6 (FIG. 4A); *see also id.* at 8 (FIGs. 5-6).

73. On information and belief, the imaging system of the Infringing Products is configured to determine at least one feature selected from the group of features consisting of a bitting pattern of the existing key and a channel profile of the existing key. Figure 5 of KeyMe's '468 patent demonstrates measuring a bitting pattern of an existing key:

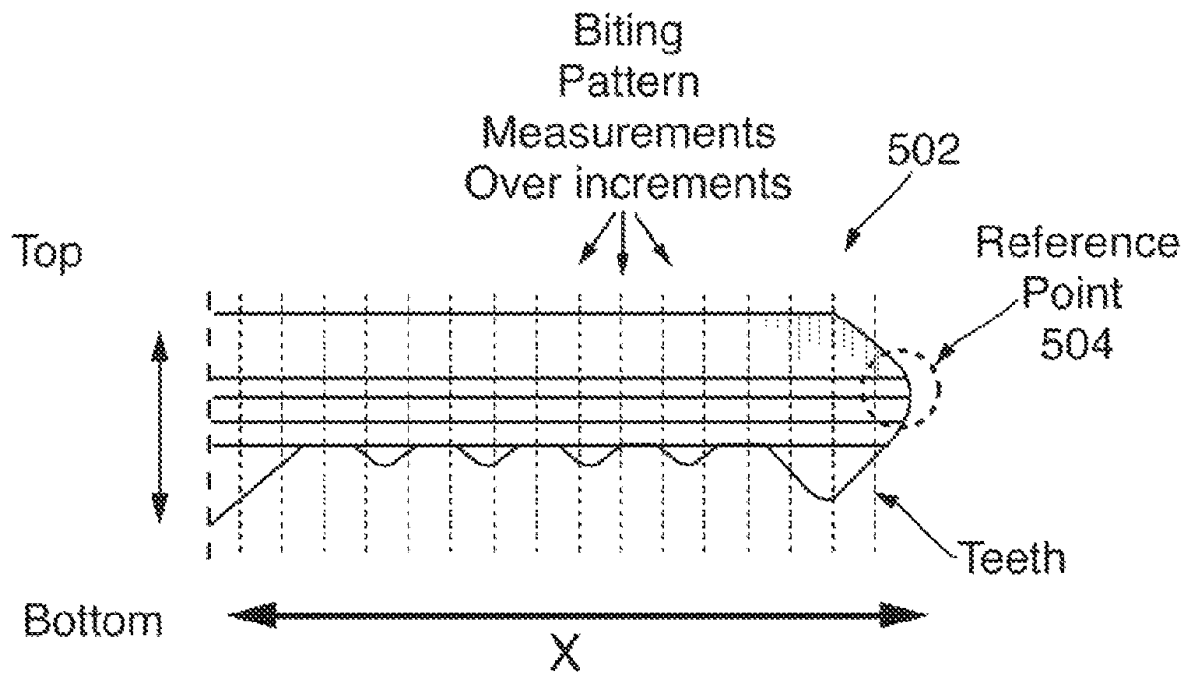


FIG. 5

74. *Id.* at 8. Further, Figure 6 of the KeyMe '468 patent illustrates KeyMe's use of a cross-sectional profile, i.e. a channel profile, of an existing key:

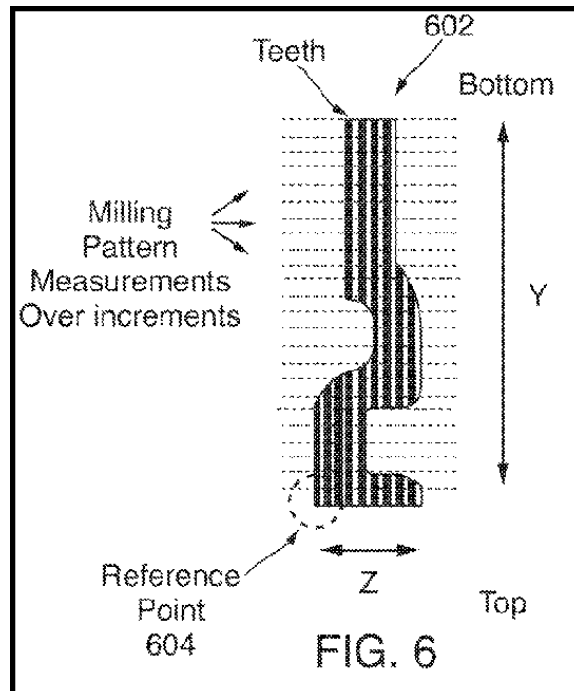


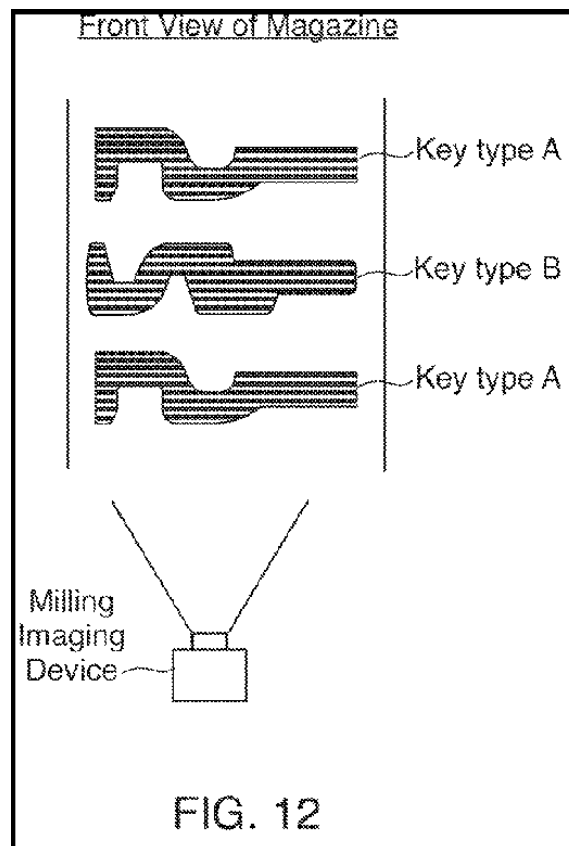
FIG. 6

*Id.* (FIG. 6); *see also id.* at col. 4, ll. 12-21:

More generally, key detector 106 can detect geometric information about a key. For example, key detector 106 can detect the dimensions of a key (e.g., length, width, height, profile, shoulder shape, etc.) and features of the key. Examples of features of the key can include, but are not limited to, a bitting pattern, protuberances, dimples, voids, grooves, a milling profile, a milling pattern of the key from one or more side views, a milling pattern of the key from a front view (e.g., looking from the tip of the key toward the head of the key), etc.

*See also id.* at col. 16, ll. 62-64 (“Once in the slot, one or more imaging devices 406 and 408 can be used to optically detect a bitting pattern and a key blank type of the key in some embodiments.”).

75. Figure 12 of the KeyMe ’468 patent depicts KeyMe’s use of the channel profile to assist its machines in detecting and retrieving a key blank whose cross-sectional profile matches that of the master key:



*Id.* at 15 (FIG. 12); *see also id.* at col. 6, ll. 31-37 (“In some embodiments, each magazine can contain an inventory of multiple key types so that the number of magazines does not restrict the number of key types which can be accommodated in a kiosk. An illustrative example is shown in FIG. 12. In this embodiment, a key type detection method (e.g., optical imaging), can be used to identify the location of a given blank type within a magazine.”)

76. On information and belief, this subject matter disclosed in KeyMe’s patent application is embodied within the Infringing Products, and the channel profile detecting features described in the patent application are available for use as part of the key identification and duplication process. KeyMe has represented in press releases that its key duplication kiosks contain its patented key identification technology. *See Exhibit Q* at 1 (April 15, 2014 KeyMe press release stating “Through KeyMe’s patented technology, customers can scan keys with their

smartphone and receive perfect duplicates in the mail.”;

<http://www.prweb.com/releases/2014/04/prweb11764747.htm/>; last visited June 3, 2019);

**Exhibit R** at 2 (May 2, 2018 KeyMe press release stating “KeyMe kiosks employ a sophisticated and patented combination of artificial intelligence, computer vision, and robotics, which safely and effectively eliminate human error in the key duplication process.”;

<https://www.prnewswire.com/news-releases/keyme-advances-national-expansion-of-key-duplication-services-300641032.html>; last visited June 3, 2019).

77. On information and belief, the Infringing Products contain a fabrication system configured to cut the selected key blank to duplicate a key tooth pattern of the master key. *See Exhibit L* at 2 (“Based on preset algorithms, our key duplication kiosk (<http://www.key.me/kiosk>) then generates a 3D image of the key’s teeth.”); **Exhibit M** at 2 (“If you’re locked out, all you need to do is locate the nearest KeyMe locksmith in a box and cut a duplicate key. Our kiosks are equipped to print most common key types in just a few seconds. You can use the KeyMe app to locate the closest kiosk and cut a replica using only your fingerprint.”).

78. On information and belief, the fabrication system of the Infringing Products is configured to receive a key blank that the identification system has determined to be associated with the existing key. The Infringing Products must contain a storage magazine for key blanks within the kiosk housing, because the Infringing Products do not require the user to insert a key blank from outside the kiosk housing in order to duplicate a key at the kiosk. *See Exhibit D* at 2 (describing how at least some of the Infringing Products “autonomously set itself up and start cutting keys without human involvement.”).



79. On information and belief, the fabrication system of the Infringing Products is configured to receive information associated with the determined biting pattern from the identification system, and cut the determined biting pattern into a key blank. *See Exhibit L* at 2 (“Based on preset algorithms, our key duplication kiosk (<http://www.key.me/kiosk>) then generates a 3D image of the key’s teeth.”); *Exhibit M* at 2 (snapshot of a KeyMe website stating “If you’re locked out, all you need to do is locate the nearest KeyMe locksmith in a box and cut a duplicate key. Our kiosks are equipped to print most common key types in just a few seconds.” <https://blog.key.me/locksmith-in-a-box-protects-you-from-lockouts/>; last visited June 3, 2019); *see also Exhibit D* at 2 (describing how at least some of the Infringing Products “autonomously set itself up and start cutting keys without human involvement.”).

80. On information and belief, the Infringing Products include a kiosk housing with an associated user interface. KeyMe has encouraged customers on its website to “try out KeyMe’s touchscreen today!” *See Exhibit J* at 3 (<https://blog.key.me/how-will-the-touchscreen-evolve-in-2017/>; last visited May 19, 2019). On information and belief, the user interface is configured to provide status information to a user regarding a key duplication process. *See Exhibit Z* (photograph of a user interface of a KeyMe kiosk taken at a Safeway store in Leesburg, Virginia on August 29, 2019 during a key duplication process, wherein the user interface displays a message stating that the system was “analyzing + examining [sic] all details.”).

81. On information and belief, the Infringing Products therefore meet each and every limitation of at least claim 1 of the ’474 patent.

82. Claim 11 of the ’474 patent recites:

A system for duplicating a key, comprising:  
an identification system, wherein the identification system includes:

- a housing;
- a slot opening in the housing configured to receive only the shank of an existing key;
- a transponder sensor located at or around the slot opening configured to detect the presence of a transponder within the head of the existing key and to read a transponder code associated with the detected transponder;
- an imaging system comprising one or more light sources and one or more receivers, wherein the imaging system is configured to determine at least one feature selected from the group of features consisting of a biting pattern of the existing key and a channel profile of the existing key;
- wireless communication hardware; and
- a user interface associated with the housing,
  - wherein the user interface includes a touch screen, and
  - wherein the user interface is configured to provide status information to a user regarding a key duplication process; and
- a fabrication system located at a location remote from the identification system, wherein the fabrication system includes:
  - wireless communication hardware; and
  - at least one system for duplication of the existing key selected from the group of systems consisting of a cutting system, a milling system, and a transponder cloning pocket;
  - wherein the wireless communication hardware of the identification system and the wireless communication hardware of the fabrication system are configured to exchange communications, and
  - wherein the identification system is configured to transmit information associated with one or both of the determined biting pattern and the determined channel profile to the fabrication system via the wireless communication hardware.

**Exhibit C** at col. 23, line 64 – col. 24, line 38.

83. KeyMe has described the Infringing Products as “self-service key copying kiosks.” See **Exhibit I** at 3 (website stating “Find our self-service key copying kiosks in retailers like Bed Bath & Beyond, Rite Aid and 7-Eleven”; <https://blog.key.me/24-hour-locksmith-near-you/>; last visited May 19, 2019). KeyMe advertises to the public that any of its kiosks within its network may be used to duplicate keys. See, e.g., **Exhibit K** at 4 (“Recipients can cut a spare key from any KeyMe kiosk nationwide.”).

84. On information and belief, the Infringing Products include a key-receiving entry in the kiosk housing configured to receive only the shank of an existing key. See *id.* at 1

(snapshot of website showing a KeyMe kiosk with a key-receiving entry surrounded by the instruction “INSERT KEY”; <https://key.me>; last visited May 19, 2019); **Exhibit L** at 2 (same; <https://blog.key.me/how-our-key-copying-machines-learn/>; last visited May 19, 2019). On information and belief, the key-receiving entry is configured to block insertion of the head of an inserted key, and receives only the shank of an existing key. *See* **Exhibit P** (’468 patent) at col. 11, lines 48-50 (“The key scanning slot can allow a user to maintain contact with the handle of the key at all times in some embodiments. The key scanning slot can permit the key to remain attached to a keychain (or key ring, or any other key retention device) during key scanning.”)

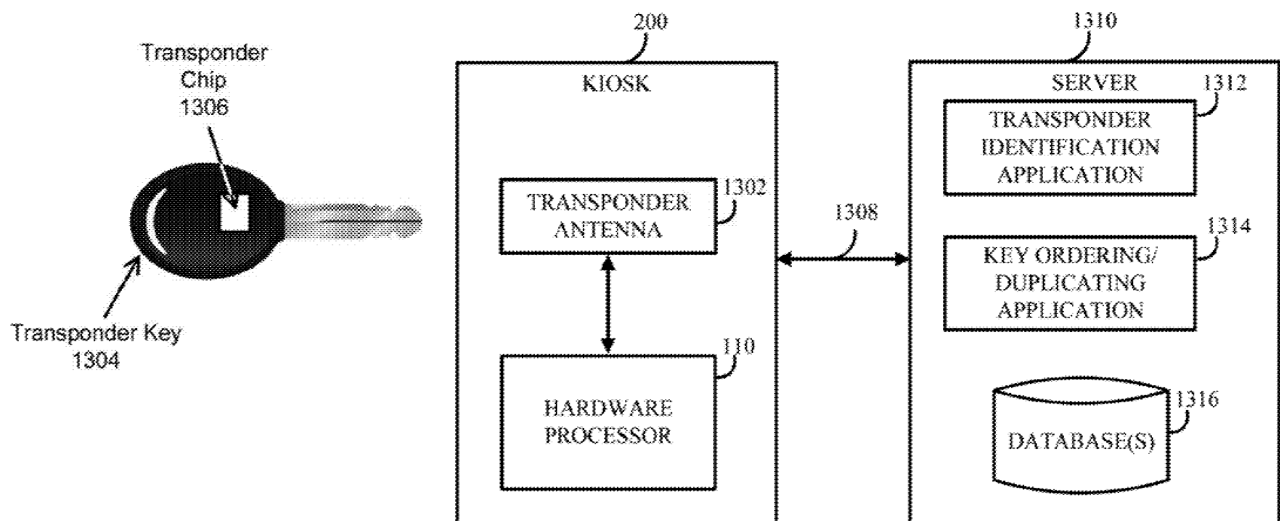
85. On information and belief, the Infringing Products include a transponder sensor located at or around the slot opening configured to detect the presence of a transponder within the head of the existing key and to read a transponder code associated with the detected transponder. *See* **Exhibit D** at 2 (“Our older key copying kiosks could support a large number of car keys, however they weren’t able to copy the more advanced keyless ‘fob’ keys found on more modern cars. Our new kiosks can copy significantly more car keys than ever before, and can copy these Fob keys as well, for a fraction of the cost of a dealership”; **Exhibit T** at 1 (“We have officially launched our next generation ‘locksmith in a box’ key duplication kiosk! These next generation kiosks are able to copy car keys, both with transponder chips and those without.” (<https://blog.key.me/our-new-locksmith-in-a-box-next-generation-kiosk/>; last visited September 1, 2019); **Exhibit U** at 1 (February 27, 2018 KeyMe press release stating “Once such a key is inserted into the kiosk, the transponder data is captured and stored along with the key’s shape...”; <https://www.rfidjournal.com/articles/view?17242/>; last visited September 1, 2019); **Exhibit V** at 1 (October 27, 2014 KeyMe press release stating “The new kiosks will be able to copy car keys, both with transponder chips and those without”; [- 27 -](https://www.twice.com/the-</a></p>
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wire/keyme-rolls-out-next-generation-kiosks-new-functionality-including-car-keys-and-expands-retail-footprint-54570; last visited September 1, 2019); **Exhibit W** at 1 (October 26, 2016

KeyMe press release stating “The customer places their current fob against the key slot, allowing the secure transfer of the transponder ID. KeyMe will code a new transponder, cut a new blade and ship it to the customer via complementary priority mail with a tracking code.”;

<https://www.kioskmarketplace.com/news/keyme-kiosks-copy-car-key-fobs-and-save-digital-copies-in-the-cloud/>; last visited September 1, 2019).

86. KeyMe described the transponder sensors associated with its kiosks in a patent application filed on July 6, 2015 which later issued as U.S. Patent No. 9,563,885. *See generally* **Exhibit X**. Figure 13 of the ’885 patent depicts a schematic of a key duplication kiosk including a “transponder antenna”:



*Id.* at 16 (FIG. 13); *see also id.* at col. 16, ll. 26-31 (“As shown in FIG. 13, in some embodiments, kiosk 200 can include a transponder antenna 1302 that can be coupled to hardware processor 110. In such embodiments, transponder antenna 1302 can be used to send and/or receive signals from a transponder chip 1304 included in a transponder key 1306.”).

87. On information and belief, the Infringing Products include an imaging system comprising one or more light sources and one or more receivers. *See Exhibit K* at 3 (“Instead of trace-cutting your keys like some other guys, KeyMe uses 3D imaging and predictive algorithms, creating a perfect image of your key.”); **Exhibit L** at 1 (“Our computer vision technology allows the kiosk to scan and recognize your key using multiple cameras in a process very similar to how facial recognition technology identifies a person based on a digital image.”); **Exhibit Y** at 2 (“The kiosks, equipped with sophisticated robotics systems and multiple internal cameras, as well as frequency detectors for RFID and car-key frequencies, are manufactured in Rochester, Minnesota.”).

88. KeyMe described its identification technology in a patent application filed on January 4, 2013 which later issued as U.S. Patent No. 8,682,468. *See generally Exhibit P.* Figure 4A of the ’468 patent demonstrates using an imaging system comprising one or more light sources and one or more receivers, in the form of cameras:

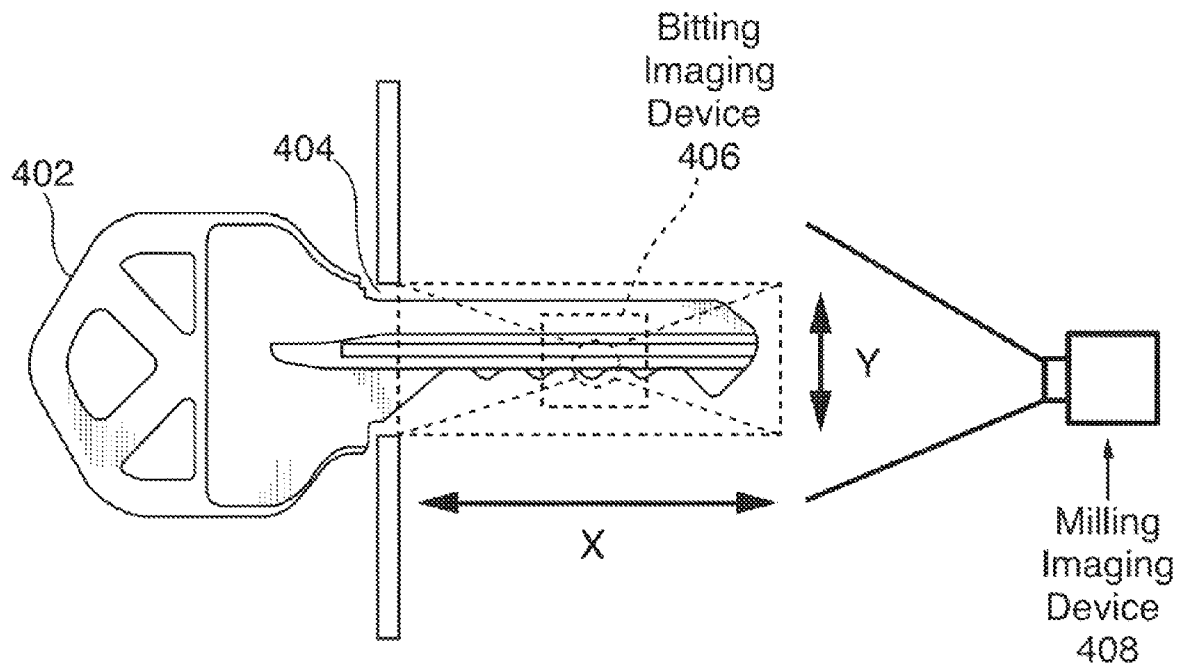


FIG. 4A

*Id.* at 6 (FIG. 4A); *see also id.* at 8 (FIGs. 5-6).

89. On information and belief, the imaging system of the Infringing Products is configured to determine at least one feature selected from the group of features consisting of a bitting pattern of the existing key and a channel profile of the existing key. Figure 5 of KeyMe's '468 patent demonstrates measuring a bitting pattern of an existing key:

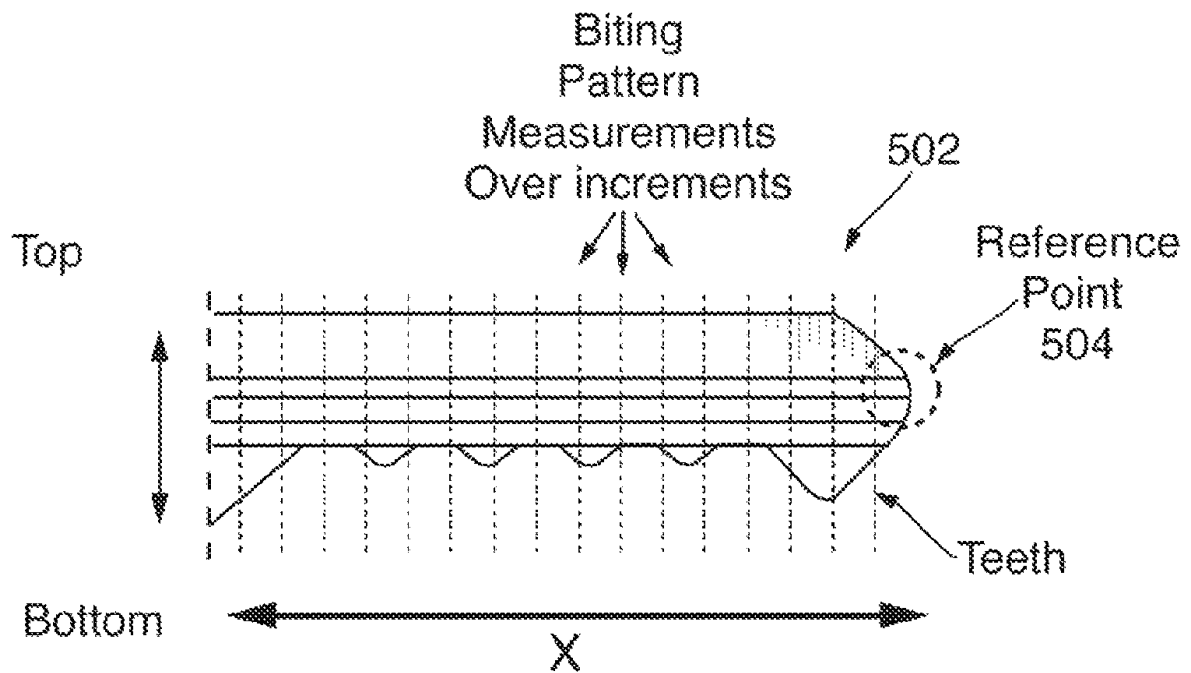


FIG. 5

90. *Id.* at 8. Further, Figure 6 of the KeyMe '468 patent illustrates KeyMe's use of a cross-sectional profile, i.e. a channel profile, of an existing key:

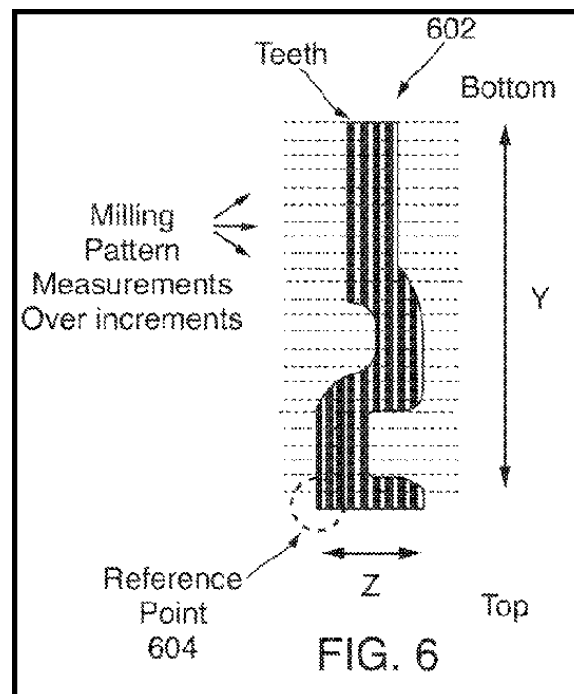


FIG. 6

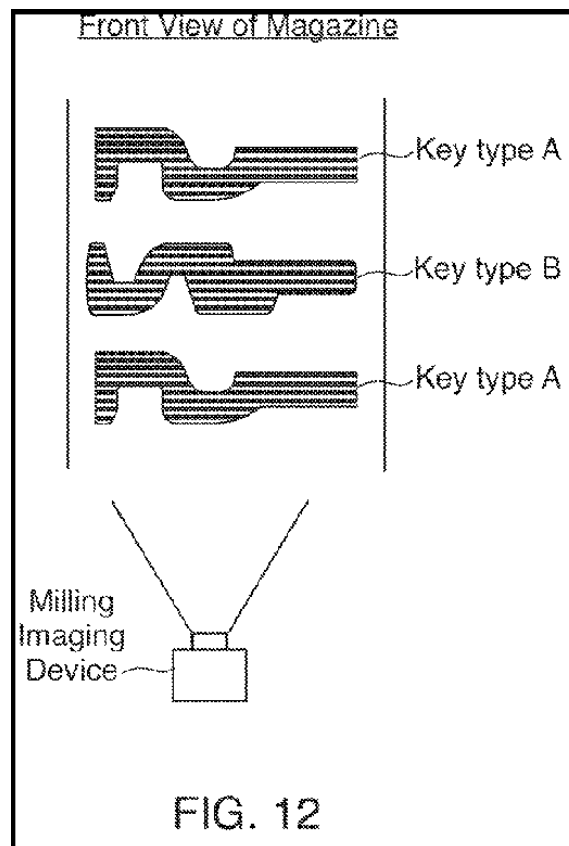
*Id.* (FIG. 6); *see also id.* at col. 4, ll. 12-21:

More generally, key detector 106 can detect geometric information about a key. For example, key detector 106 can detect the dimensions of a key (e.g., length, width, height, profile, shoulder shape, etc.) and features of the key. Examples of features of the key can include, but are not limited to, a bitting pattern, protuberances, dimples, voids, grooves, a milling profile, a milling pattern of the key from one or more side views, a milling pattern of the key from a front view (e.g., looking from the tip of the key toward the head of the key), etc.

*See also id.* at col. 16, ll. 62-64 (“Once in the slot, one or more imaging devices 406 and 408 can be used to optically detect a bitting pattern and a key blank type of the key in some embodiments.”).

91. Figure 12 of the KeyMe ’468 patent depicts KeyMe’s use of the channel profile to assist its machines in detecting and retrieving a key blank whose cross-sectional profile matches that of the master key:





*Id.* at 15 (FIG. 12); *see also id.* at col. 6, ll. 31-37 (“In some embodiments, each magazine can contain an inventory of multiple key types so that the number of magazines does not restrict the number of key types which can be accommodated in a kiosk. An illustrative example is shown in FIG. 12. In this embodiment, a key type detection method (e.g., optical imaging), can be used to identify the location of a given blank type within a magazine.”)

92. On information and belief, this subject matter disclosed in KeyMe’s patent application is embodied within the Infringing Products, and the cross-section detecting features described in the patent application are available for use as part of the key identification and duplication process. KeyMe has represented in press releases that its key duplication kiosks contain its patented key identification technology. *See Exhibit Q* at 1 (April 15, 2014 KeyMe press release stating “Through KeyMe’s patented technology, customers can scan keys with their

smartphone and receive perfect duplicates in the mail.”;

<http://www.prweb.com/releases/2014/04/prweb11764747.htm/>; last visited June 3, 2019);

**Exhibit R** at 2 (May 2, 2018 KeyMe press release stating “KeyMe kiosks employ a sophisticated and patented combination of artificial intelligence, computer vision, and robotics, which safely and effectively eliminate human error in the key duplication process.”;

<https://www.prnewswire.com/news-releases/keyme-advances-national-expansion-of-key-duplication-services-300641032.html>; last visited June 3, 2019).

93. On information and belief, the identification system of the Infringing Products contains and/or is operatively linked to wireless communication hardware. *See, e.g., Exhibit P* at col. 4, lines 46-55 (describing the kiosk containing a “communication network interface” which may be a “wireless data network interface”); **Exhibit X** at col. 6, lines 7-17 (same), col. 17, lines 51-55 (describing that “kiosk 200 can cause information received by transponder antenna 1302 to be transmitted to a server 1310 over a communication link 1308 and/or a communication network.”). On information and belief, all communications to and from KeyMe’s kiosks are wireless, as KeyMe does not require retailers to provide wired internet at the locations within stores where the kiosks are placed.

94. On information and belief, the Infringing Products include a kiosk housing with an associated user interface. KeyMe has encouraged customers on its website to “try out KeyMe’s touchscreen today!” *See Exhibit J* at 3 (<https://blog.key.me/how-will-the-touchscreen-evolve-in-2017/>; last visited May 19, 2019). On information and belief, the user interface is configured to provide status information to a user regarding a key duplication process. *See Exhibit Z* (photograph of a user interface of a KeyMe kiosk taken at a Safeway store in

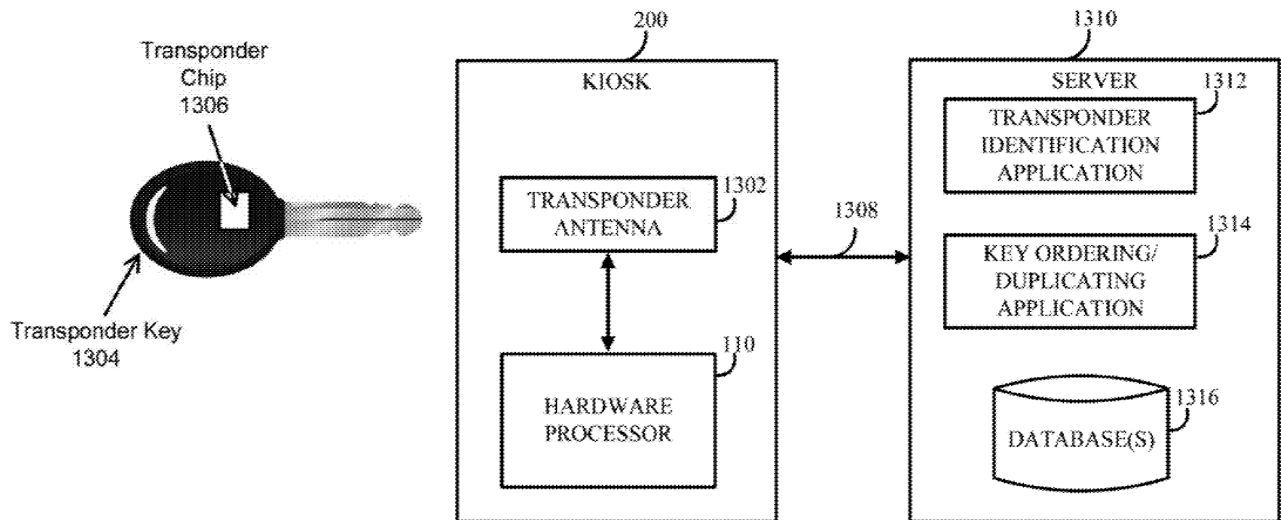
Leesburg, Virginia on August 29, 2019 during a key duplication process, wherein the user interface displays a message stating that the system was “analyzing + examining [sic] all details.”).

95. On information and belief, the Infringing Products can be configured to interface with a fabrication system located at a location remote from the identification system. *See Exhibit D* at 2 (“Our new kiosks enable our customers to choose from hundreds of styles...all sent to their mailbox with free shipping.”). Indeed, KeyMe has advertised its service wherein a customer can “share” previously-identified keys with other individuals, who then can cut a duplicate key at “any KeyMe kiosk nationwide.” *Exhibit K* at 4. Further, customers can cut previously-identified keys themselves at any KeyMe kiosk. *See Exhibit M* at 2 (“If you’re locked out, all you need to do is locate the nearest KeyMe locksmith in a box and cut a duplicate key. Our kiosks are equipped to print most common key types in just a few seconds. You can use the KeyMe app to locate the closest kiosk and cut a replica using only your fingerprint.”).

96. On information and belief, the remote fabrication system of the Infringing Products contains and/or is operatively linked to wireless communication hardware. *See, e.g., Exhibit P* at col. 4, lines 46-55 (describing the kiosk containing a “communication network interface” which may be a “wireless data network interface”); *Exhibit X* at col. 6, lines 7-17 (same), col. 17, lines 51-55 (describing that “kiosk 200 can cause information received by transponder antenna 1302 to be transmitted to a server 1310 over a communication link 1308 and/or a communication network.”). On information and belief, all communications to and from KeyMe’s kiosks are wireless, as KeyMe does not require retailers to provide wired internet at the locations within stores where the kiosks are placed. Further, on information and belief, the Infringing Products are configured to transmit a transponder code read by the identification system to a remote fabrication system to permit an existing key with a transponder to be

duplicated by the remote system. *See Exhibit W* at 1 (October 26, 2016 KeyMe press release stating “The customer places their current fob against the key slot, allowing the secure transfer of the transponder ID. KeyMe will code a new transponder, cut a new blade and ship it to the customer via complementary priority mail with a tracking code.”);

<https://www.kioskmarketplace.com/news/keyme-kiosks-copy-car-key-fobs-and-save-digital-copies-in-the-cloud/>; last visited September 1, 2019); *see also Exhibit X* at Figure 13 (depicting a remote “transponder identification application” and “key ordering/duplication application” separate from the kiosk)



97. On information and belief, the fabrication system of the Infringing Products is configured to include at least one system for duplication of the existed key selected from the group of systems consisting of a cutting system, a milling system, and a transponder cloning pocket.

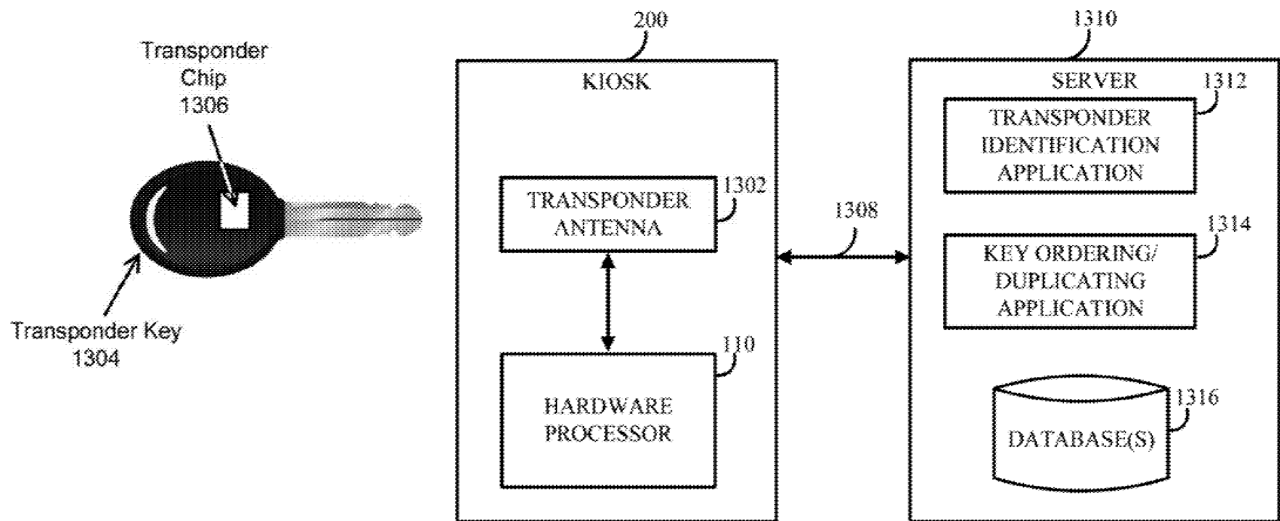
98. KeyMe advertises remote fabrication systems with cutting and milling systems. *See Exhibit D* at 2 (“Our new kiosks enable our customers to choose from hundreds of styles...all sent to their mailbox with free shipping.”). Indeed, KeyMe has advertised its service

wherein a customer can “share” previously-identified keys with other individuals, who then can cut a duplicate key at “any KeyMe kiosk nationwide.” **Exhibit K** at 4. Further, customers can cut previously-identified keys themselves at any KeyMe kiosk. *See Exhibit M* at 2 (“If you’re locked out, all you need to do is locate the nearest KeyMe locksmith in a box and cut a duplicate key. Our kiosks are equipped to print most common key types in just a few seconds. You can use the KeyMe app to locate the closest kiosk and cut a replica using only your fingerprint.”).

99. KeyMe also advertises remote fabrication systems containing transponder cloning pockets. *See Exhibit W* at 1 (October 26, 2016 KeyMe press release stating “The customer places their current fob against the key slot, allowing the secure transfer of the transponder ID. KeyMe will code a new transponder, cut a new blade and ship it to the customer via complementary priority mail with a tracking code.”; <https://www.kioskmarketplace.com/news/keyme-kiosks-copy-car-key-fobs-and-save-digital-copies-in-the-cloud/>; last visited September 1, 2019); *see also Exhibit X* at Figure 13 (depicting a remote “transponder identification application” and “key ordering/duplication application” separate from the kiosk).

100. On information and belief, the wireless communication hardware of the identification system and that of the remote fabrication system are configured to exchange communications. *See Exhibit L* at 2 (“Based on preset algorithms, our key duplication kiosk (<http://www.key.me/kiosk>) then generates a 3D image of the key’s teeth.”); **Exhibit M** at 2 (snapshot of a KeyMe website stating “If you’re locked out, all you need to do is locate the nearest KeyMe locksmith in a box and cut a duplicate key. Our kiosks are equipped to print most common key types in just a few seconds.” <https://blog.key.me/locksmith-in-a-box-protects-you-from-lockouts/>; last visited June 3, 2019); *see also Exhibit D* at 2 (describing how at least

some of the Infringing Products “autonomously set itself up and start cutting keys without human involvement.”); *see also* **Exhibit X** at Figure 13 (depicting a two-way arrow at reference label 1308 indicating communications between identification and fabrication systems)



101. On information and belief, the identification system is configured to transmit information associated with one or both of the determined biting pattern and the determined channel profile to the fabrication system via the wireless communication hardware. *See* **Exhibit D** at 2 (“Our new kiosks enable our customers to choose from hundreds of styles...all sent to their mailbox with free shipping.”). Indeed, KeyMe has advertised its service wherein a customer can “share” previously-identified keys with other individuals, who then can cut a duplicate key at “any KeyMe kiosk nationwide.” **Exhibit K** at 4. Further, customers can cut previously-identified keys themselves at any KeyMe kiosk. *See* **Exhibit M** at 2 (“If you’re locked out, all you need to do is locate the nearest KeyMe locksmith in a box and cut a duplicate key. Our kiosks are equipped to print most common key types in just a few seconds. You can use the KeyMe app to locate the closest kiosk and cut a replica using only your fingerprint.”).

102. On information and belief, the Infringing Products therefore meet each and every limitation of at least claim 11 of the '474 patent.

103. Claim 20 of the '474 patent recites:

A key making machine, comprising:  
a housing;  
an identification system, wherein the identification system includes:  
a slot opening in the housing configured to receive only the shank of an existing key;  
a transponder sensor located at or around the slot opening configured to detect the presence of a transponder within the head of the existing key and to read a transponder code associated with the detected transponder; and  
an imaging system comprising one or more light sources and one or more receivers, wherein the imaging system is configured to determine both a biting pattern of the existing key and a channel profile of both sides of the shank of the existing key, and  
wherein the identification system uses the determined channel profiles of both sides of the shank of the existing key to identify the existing key; and  
a fabrication system configured to cut a biting pattern of an existing key without a transponder into a key blank selected from a plurality of key blanks that are stored within the housing which the identification system has determined to be associated with the existing key,  
wherein the key making machine is configured to transmit the transponder code read from the transponder to a remote system to permit an existing key with a transponder to be duplicated by the remote system.

**Exhibit C** at col. 25, line 23 – col. 26, line 25.

104. KeyMe has described the Infringing Products as “self-service key copying kiosks.” See **Exhibit I** at 3 (website stating “Find our self-service key copying kiosks in retailers like Bed Bath & Beyond, Rite Aid and 7-Eleven”; <https://blog.key.me/24-hour-locksmith-near-you/>; last visited May 19, 2019).

105. On information and belief, the Infringing Products include a key-receiving entry in the kiosk housing configured to receive only the shank of an existing key. See **Exhibit K** at 1 (snapshot of website showing a KeyMe kiosk with a key-receiving entry surrounded by the instruction “INSERT KEY”; <https://key.me/>; last visited May 19, 2019); **Exhibit L** at 2 (same;

<https://blog.key.me/how-our-key-copying-machines-learn/>; last visited May 19, 2019). On information and belief, the key-receiving entry is configured to block insertion of the head of an inserted key, and receives only the shank of an existing key. *See Exhibit P* ('468 patent) at col. 11, lines 48-50 ("The key scanning slot can allow a user to maintain contact with the handle of the key at all times in some embodiments. The key scanning slot can permit the key to remain attached to a keychain (or key ring, or any other key retention device) during key scanning.").

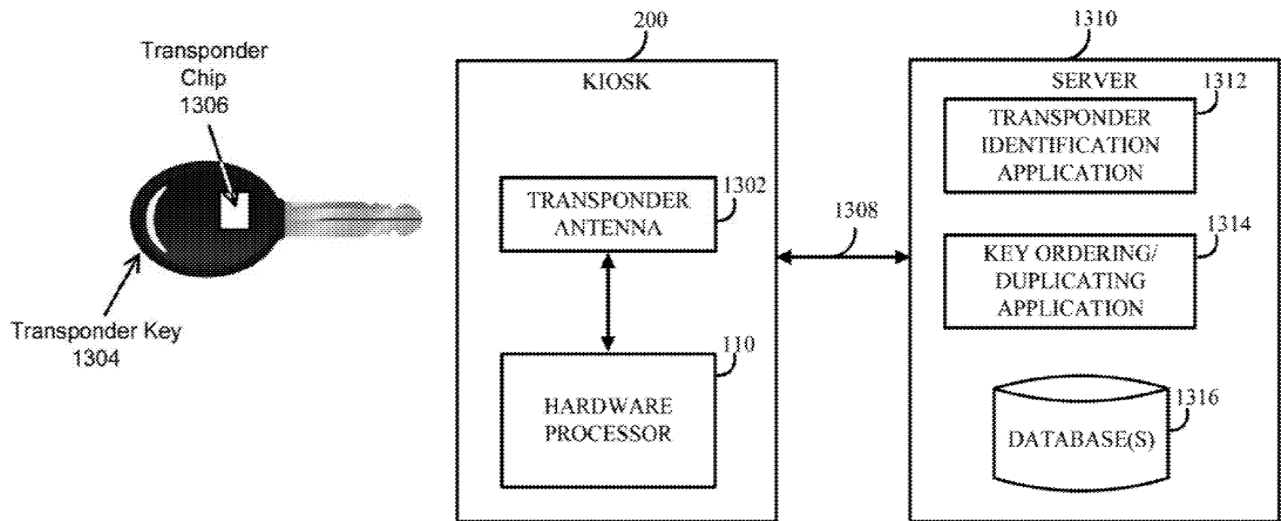
106. On information and belief, the Infringing Products include a transponder sensor located at or around the slot opening configured to detect the presence of a transponder within the head of the existing key and to read a transponder code associated with the detected transponder. *See Exhibit D* at 2 ("Our older key copying kiosks could support a large number of car keys, however they weren't able to copy the more advanced keyless 'fob' keys found on more modern cars. Our new kiosks can copy significantly more car keys than ever before, and can copy these Fob keys as well, for a fraction of the cost of a dealership"; *Exhibit T* at 1 ("We have officially launched our next generation 'locksmith in a box' key duplication kiosk! These next generation kiosks are able to copy car keys, both with transponder chips and those without." (<https://blog.key.me/our-new-locksmith-in-a-box-next-generation-kiosk/>; last visited September 1, 2019); *Exhibit U* at 1 (February 27, 2018 KeyMe press release stating "Once such a key is inserted into the kiosk, the transponder data is captured and stored along with the key's shape..."; <https://www.rfidjournal.com/articles/view?17242/>; last visited September 1, 2019); *Exhibit V* at 1 (October 27, 2014 KeyMe press release stating "The new kiosks will be able to copy car keys, both with transponder chips and those without"; <https://www.twice.com/the-wire/keyme-rolls-out-next-generation-kiosks-new-functionality-including-car-keys-and-expands-retail-footprint-54570>; last visited September 1, 2019); *Exhibit W* at 1 (October 26, 2016



KeyMe press release stating “The customer places their current fob against the key slot, allowing the secure transfer of the transponder ID. KeyMe will code a new transponder, cut a new blade and ship it to the customer via complementary priority mail with a tracking code.”;

<https://www.kioskmarketplace.com/news/keyme-kiosks-copy-car-key-fobs-and-save-digital-copies-in-the-cloud/>; last visited September 1, 2019).

107. KeyMe described the transponder sensors associated with its kiosks in a patent application filed on July 6, 2015 which later issued as U.S. Patent No. 9,563,885. *See generally* **Exhibit X**. Figure 13 of the ’885 patent depicts a schematic of a key duplication kiosk including a “transponder antenna”:

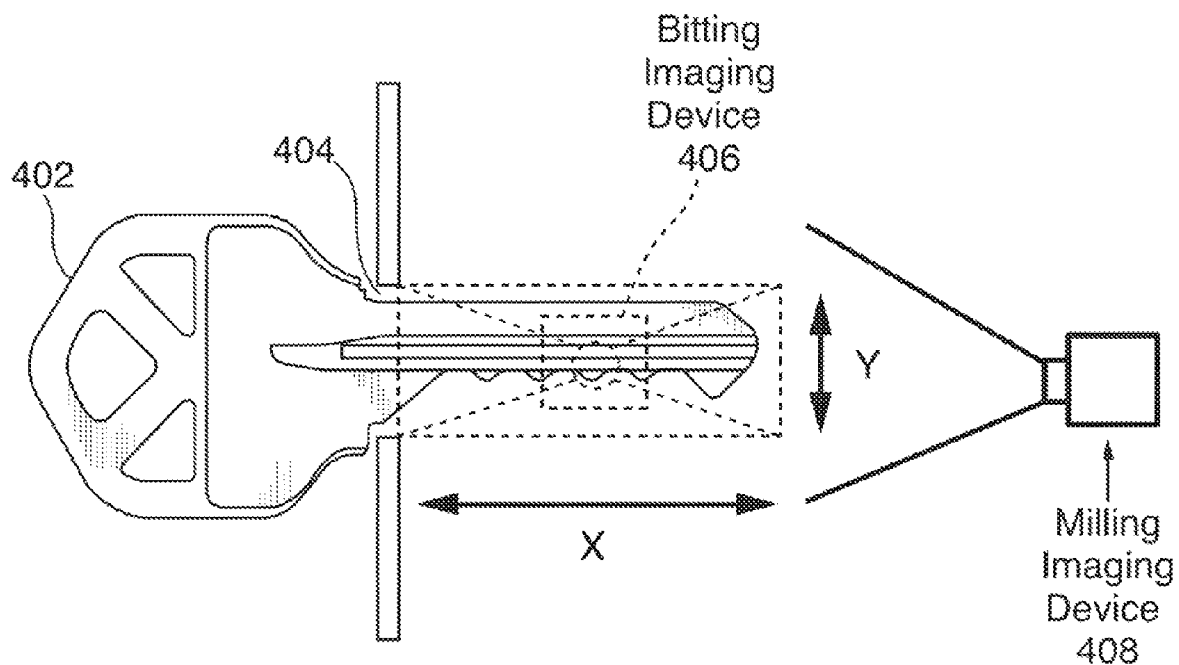


*Id.* at 16 (FIG. 13); *see also id.* at col. 16, ll. 26-31 (“As shown in FIG. 13, in some embodiments, kiosk 200 can include a transponder antenna 1302 that can be coupled to hardware processor 110. In such embodiments, transponder antenna 1302 can be used to send and/or receive signals from a transponder chip 1304 included in a transponder key 1306.”).

108. On information and belief, the Infringing Products include an imaging system comprising one or more light sources and one or more receivers. *See* **Exhibit K** at 3 (“Instead of

trace-cutting your keys like some other guys, KeyMe uses 3D imaging and predictive algorithms, creating a perfect image of your key.”); **Exhibit L** at 1 (“Our computer vision technology allows the kiosk to scan and recognize your key using multiple cameras in a process very similar to how facial recognition technology identifies a person based on a digital image.”); **Exhibit Y** at 2 (“The kiosks, equipped with sophisticated robotics systems and multiple internal cameras, as well as frequency detectors for RFID and car-key frequencies, are manufactured in Rochester, Minnesota.”).

109. KeyMe described its identification technology in a patent application filed on January 4, 2013 which later issued as U.S. Patent No. 8,682,468. *See generally* **Exhibit P**. Figure 4A of the '468 patent demonstrates using an imaging system comprising one or more light sources and one or more receivers, in the form of cameras:



**FIG. 4A**

*Id.* at 6 (FIG. 4A); *see also id.* at 8 (FIGs. 5-6).

110. On information and belief, the imaging system of the Infringing Products is configured to determine both a biting pattern of the existing key and a channel profile of both sides of the shank of the existing key. Figure 5 of KeyMe's '468 patent demonstrates measuring a biting pattern of an existing key:

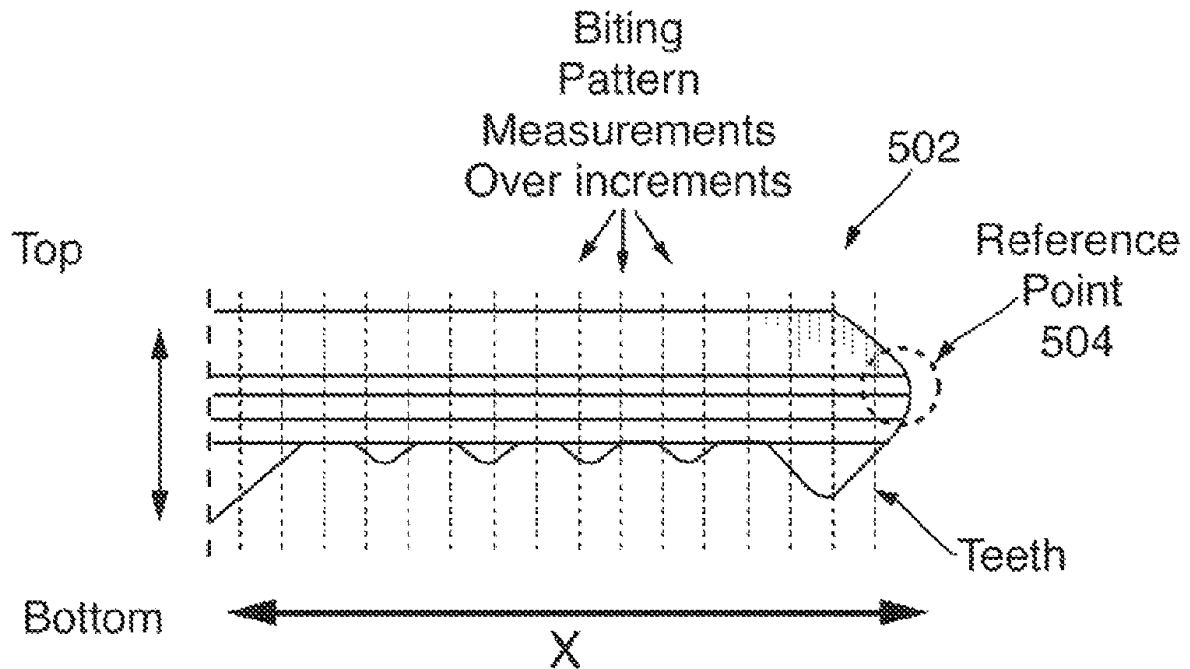
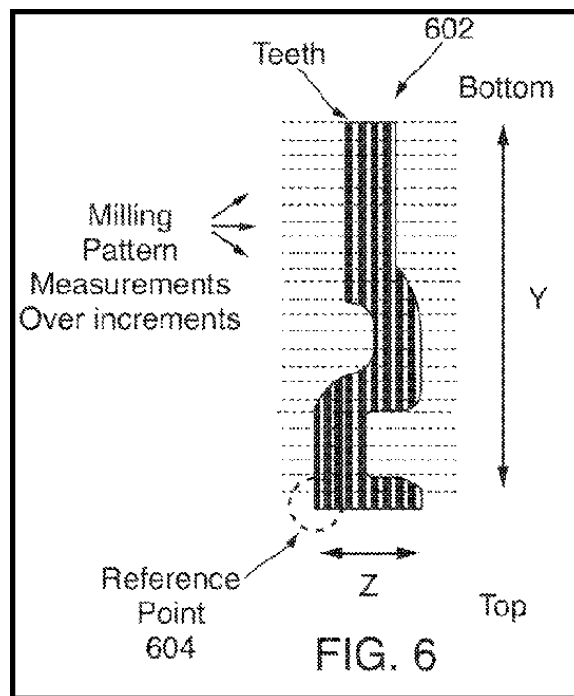


FIG. 5

111. *Id.* at 8. Further, Figure 6 of the KeyMe '468 patent illustrates KeyMe's use of a cross-sectional profile, i.e. a channel profile, of both sides of the shank of an existing key:

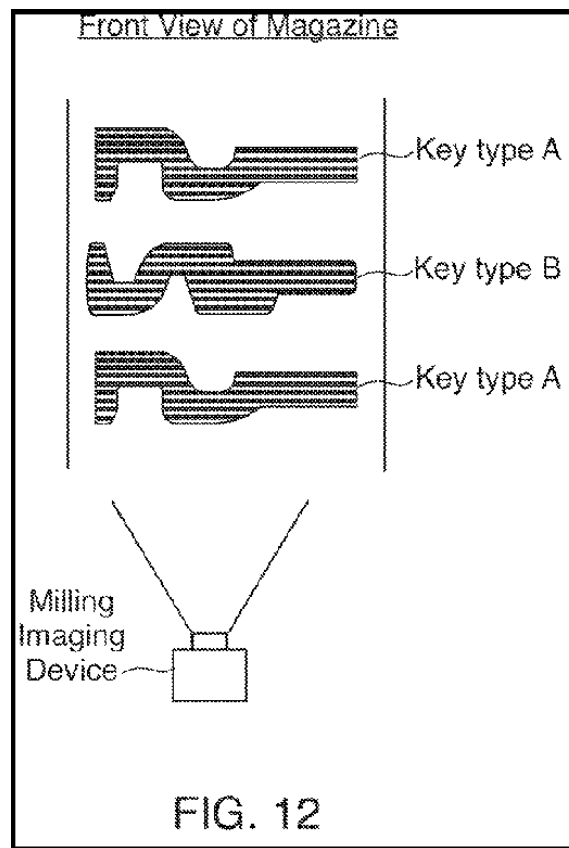


*Id.* (FIG. 6); *see also id.* at col. 4, ll. 12-21:

More generally, key detector 106 can detect geometric information about a key. For example, key detector 106 can detect the dimensions of a key (e.g., length, width, height, profile, shoulder shape, etc.) and features of the key. Examples of features of the key can include, but are not limited to, a biting pattern, protuberances, dimples, voids, grooves, a milling profile, a milling pattern of the key from one or more side views, a milling pattern of the key from a front view (e.g., looking from the tip of the key toward the head of the key), etc.

*See also id.* at col. 16, ll. 62-64 (“Once in the slot, one or more imaging devices 406 and 408 can be used to optically detect a biting pattern and a key blank type of the key in some embodiments.”).

112. Figure 12 of the KeyMe ’468 patent depicts KeyMe’s use of both of the channel profiles to assist its machines in detecting and retrieving a key blank whose channel profiles match that of the master key:



*Id.* at 15 (FIG. 12); *see also id.* at col. 6, ll. 31-37 (“In some embodiments, each magazine can contain an inventory of multiple key types so that the number of magazines does not restrict the number of key types which can be accommodated in a kiosk. An illustrative example is shown in FIG. 12. In this embodiment, a key type detection method (e.g., optical imaging), can be used to identify the location of a given blank type within a magazine.”)

113. On information and belief, this subject matter disclosed in KeyMe’s patent application is embodied within the Infringing Products, and the channel profile detecting features described in the patent application are available for use as part of the key identification and duplication process. KeyMe has represented in press releases that its key duplication kiosks contain its patented key identification technology. *See Exhibit Q* at 1 (April 15, 2014 KeyMe press release stating “Through KeyMe’s patented technology, customers can scan keys with their

smartphone and receive perfect duplicates in the mail.”;

<http://www.prweb.com/releases/2014/04/prweb11764747.htm/>; last visited June 3, 2019);

**Exhibit R** at 2 (May 2, 2018 KeyMe press release stating “KeyMe kiosks employ a sophisticated and patented combination of artificial intelligence, computer vision, and robotics, which safely and effectively eliminate human error in the key duplication process.”;

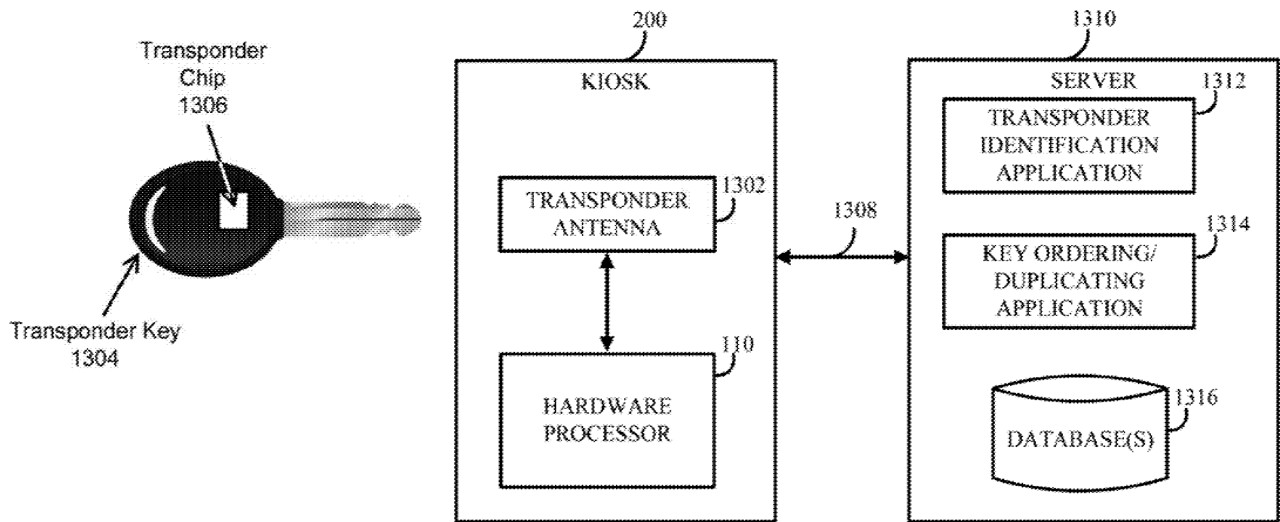
<https://www.prnewswire.com/news-releases/keyme-advances-national-expansion-of-key-duplication-services-300641032.html>; last visited June 3, 2019).

114. On information and belief, the Infringing Products contain a fabrication system configured to cut a biting pattern of an existing key without a transponder into a key blank selected from a plurality of key blanks that are stored within the housing which the identification system has determined to be associated with the existing key. *See* **Exhibit L** at 2 (“Based on preset algorithms, our key duplication kiosk (<http://www.key.me/kiosk>) then generates a 3D image of the key’s teeth.”); **Exhibit M** at 2 (“If you’re locked out, all you need to do is locate the nearest KeyMe locksmith in a box and cut a duplicate key. Our kiosks are equipped to print most common key types in just a few seconds. You can use the KeyMe app to locate the closest kiosk and cut a replica using only your fingerprint.”).

115. On information and belief, the Infringing Products must contain a storage magazine for key blanks within the kiosk housing, because the Infringing Products do not require the user to insert a key blank from outside the kiosk housing in order to duplicate a key. *See* **Exhibit D** at 2 (describing how at least some of the Infringing Products “autonomously set itself up and start cutting keys without human involvement.”).

116. On information and belief, the fabrication system of the Infringing Products is configured to receive information associated with the determined biting pattern from the identification system, and cut the determined biting pattern into a key blank. *See Exhibit L* at 2 (“Based on preset algorithms, our key duplication kiosk (<http://www.key.me/kiosk>) then generates a 3D image of the key’s teeth.”); *Exhibit M* at 2 (snapshot of a KeyMe website stating “If you’re locked out, all you need to do is locate the nearest KeyMe locksmith in a box and cut a duplicate key. Our kiosks are equipped to print most common key types in just a few seconds.” <https://blog.key.me/locksmith-in-a-box-protects-you-from-lockouts/>; last visited June 3, 2019); *see also Exhibit D* at 2 (describing how at least some of the Infringing Products “autonomously set itself up and start cutting keys without human involvement.”).

117. On information and belief, the Infringing Products are configured to transmit the transponder code read from the transponder to a remote system to permit an existing key with a transponder to be duplicated by the remote system. *See Exhibit W* at 1 (October 26, 2016 KeyMe press release stating “The customer places their current fob against the key slot, allowing the secure transfer of the transponder ID. KeyMe will code a new transponder, cut a new blade and ship it to the customer via complementary priority mail with a tracking code.”; <https://www.kioskmarketplace.com/news/keyme-kiosks-copy-car-key-fobs-and-save-digital-copies-in-the-cloud/>; last visited September 1, 2019); *see also Exhibit X* at Figure 13 (depicting a remote “transponder identification application” and “key ordering/duplication application” separate from the kiosk).



118. On information and belief, the Infringing Products therefore meet each and every limitation of at least claim 20 of the '474 patent.

**COUNT I**  
**(Infringement of U.S. Patent No. 8,979,446)**

119. Hillman realleges, and incorporates in full herein, each preceding paragraph.

120. KeyMe, alone or through its agents and/or intermediaries, directly infringes at least one claim of the '446 patent either literally or under the doctrine of equivalents, by manufacturing, using, offering to sell, selling, and/or providing products and/or services that infringe the '446 patent in the United States, including the Infringing Products.

121. As such, KeyMe has infringed, is infringing, and will infringe the '446 patent, either literally or under the doctrine of equivalents, in violation of 35 U.S.C. § 271(a).

122. KeyMe had actual knowledge of the '446 patent by no later than March 30, 2015, when it was served with the complaint in the Minnesota Action.

123. Accordingly, KeyMe's infringement of the '446 patent is willful, and Hillman is entitled to enhanced damages.



124. Hillman has been damaged, in an amount yet to be determined, by KeyMe's acts of infringement and will continue to be damaged by such acts in the future.

125. Hillman seeks damages in an amount adequate to compensate Hillman for KeyMe's infringement and a permanent injunction barring KeyMe from further infringement of the '446 patent.

**COUNT II**  
**(Infringement of U.S. Patent No. 9,914,179)**

126. Hillman realleges, and incorporates in full herein, each preceding paragraph.

127. KeyMe, alone or through its agents and/or intermediaries, directly infringes at least one claim of the '179 patent, either literally or under the doctrine of equivalents, by manufacturing, using, offering to sell, selling, and/or providing products and/or services that infringe the '179 patent in the United States, including the Infringing Products.

128. As such, KeyMe has infringed, is infringing, and will infringe the '179 patent, either literally or under the doctrine of equivalents, in violation of 35 U.S.C. § 271(a).

129. KeyMe has induced, is inducing, and will induce the infringement of at least one claim of the '179 patent. As such, KeyMe has infringed, is infringing, and will infringe the '179 patent, either literally or under the doctrine of equivalents, in violation of 35 U.S.C. § 271(b).

130. KeyMe has contributed, is contributing, and will contribute to the infringement of at least one claim of the '179 patent. As such, KeyMe has infringed, is infringing, and will infringe the '179 patent, either literally or under the doctrine of equivalents, in violation of 35 U.S.C. § 271(c).

131. On July 19, 2017, KeyMe submitted an information disclosure statement ("IDS") to the PTO pursuant to its duty of candor to the PTO during prosecution of U.S. Patent

Application No. 15/273,347. *See Exhibit AA.* On that IDS, KeyMe listed Minute Key U.S. Patent Publication No. 2013/0017030. *Id.* at 1. That Minute Key reference, which is the publication of U.S. Patent Application No. 13/622,036, is the direct parent of the '179 patent, and they share the same specification. By the time the July 19, 2017 KeyMe IDS was filed with the PTO, the application that led to the '179 patent had been pending for nearly eighteen months.

132. Upon information and belief, KeyMe had actual knowledge of the '179 patent on or about the '179 patent's issue date of March 13, 2018.

133. Accordingly, KeyMe's infringement of the '179 patent is willful, and Hillman is entitled to enhanced damages.

134. Hillman has been damaged, in an amount yet to be determined, by KeyMe's acts of infringement and will continue to be damaged by such acts in the future.

135. Hillman seeks damages in an amount adequate to compensate Hillman for KeyMe's infringement and a permanent injunction barring KeyMe from further infringement of the '179 patent, from inducing others to infringe the '179 patent, and from contributorily infringing the '179 patent.

**COUNT III**  
**(Infringement of U.S. Patent No. 10,400,474)**

136. Hillman realleges, and incorporates in full herein, each preceding paragraph.

137. KeyMe, alone or through its agents and/or intermediaries, directly infringes at least one claim of the '474 patent either literally or under the doctrine of equivalents, by manufacturing, using, offering to sell, selling, and/or providing products and/or services that infringe the '474 patent in the United States, including the Infringing Products.

138. As such, KeyMe has infringed, is infringing, and will infringe the '474 patent, either literally or under the doctrine of equivalents, in violation of 35 U.S.C. § 271(a).

139. Hillman has been damaged, in an amount yet to be determined, by KeyMe's acts of infringement and will continue to be damaged by such acts in the future.

140. Hillman seeks damages in an amount adequate to compensate Hillman for KeyMe's infringement and a permanent injunction barring KeyMe from further infringement of the '474 patent.

**DEMAND FOR TRIAL BY JURY**

141. Hillman demands a trial by jury on all issues so triable.

**PRAYER FOR RELIEF**

WHEREFORE, Hillman respectfully requests the following relief from this Court:

A. That the Court adjudge and decree that KeyMe has infringed and is infringing, inducing others to infringe, and/or is contributorily infringing one or more claims of the '446, '179, and '474 patents, either literally or under the doctrine of equivalents;

B. That the Court enter a permanent injunction pursuant to 35 U.S.C. § 283 enjoining KeyMe, its officers, employees, agents, and all others acting in active concert or participation with them from further acts that infringe the '446, '179, and '474 patents;

C. That the Court determine the amount of damages pursuant to 35 U.S.C. § 284 that are adequate to compensate Hillman for KeyMe's past, continuing, and future infringement of the '446, '179, and '474 patents, and enter judgment for Hillman in the amount of its damages, plus interest and the cost of this action pursuant to 28 U.S.C. § 1920;

D. That the Court award Hillman enhanced damages under 35 U.S.C. § 284 for KeyMe's willful infringement of the '446 and '179 patents;

E. That the Court enter an order that this case be adjudged and decreed exceptional pursuant to 35 U.S.C. § 285, and that Hillman be awarded its reasonable attorneys fees; and

F. That the Court award Hillman any further and additional relief as it deems just and proper.

DATED: September 3, 2019

FINDLAY CRAFT, P.C.

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**CERTIFICATE OF SERVICE**

I hereby certify that on September 3, 2019, I electronically filed the foregoing document with the Clerk of the Court using the CM/ECF system. This document will be served on Defendant in accordance with the Federal Rules of Civil Procedure.

/s/ Eric H. Findlay

Eric H. Findlay